

AMENDMENTS TO THE CLAIMS:

Please replace the claims with the claims provided in the listing below wherein status, amendments, additions and cancellations are indicated.

1. (Canceled)
2. (Previously presented) A game system according to claim 21, wherein the sound generator outputs sounds based on at least a part of the signals generated by the signal generator.
3. (Previously presented) A game system according to claim 2, wherein the sound generator outputs the sounds based on the generation timing of the signal.
4. (Previously presented) A game system according to claim 21, wherein the instruction of motion displayed on the display screen is in a form of at least one instruction mark.
5. (Previously presented) A game system according to claim 4, wherein the display includes an image data storage means for storing a display timing data of each instruction mark, and an image control means for reading a corresponding instruction mark to be displayed from the image data storage means and scroll

displaying the read instruction mark on the display screen with respect to a reference mark.

6. (Previously presented) A game system according to claim 21, wherein the sound generator includes a sound data storage means for storing a multitude of kinds of sound data, a sound control means for reading a corresponding sound data from the sound data storage means based on the signal from the signal generator which is inputted thereto, and a sound output means for outputting a sound based on the sound data read by the sound control means.

7. (Previously presented) A game system according to claim 6, wherein the sound control means reads the corresponding sound data from the sound data storage means when the signal is inputted from the signal generator within a predetermined time period.

8. (Original) A game system according to claim 6, further comprising a replaceable storage member readably storing a display timing data of each instruction mark stored in the image data storage means, a control program of the image control means, a multitude of kinds of sound data to be stored in the sound data storage means and a control program of the sound control means, wherein the

data and the programs stored in the storage member are to be stored in the image data storage means and the sound data storage means.

9. (Original) A game system according to claim 8, wherein the storage member also stores the background sounds, and the background sounds stored in the storage member are outputted from the sound output means.

10. (Previously presented) A game system according to claim 4, wherein the evaluating means evaluates a game result based on a ratio of the number of signals inputted during a predetermined time period from the signal generator to a total number of the at least one instruction mark.

11. (Previously presented) A game system according to claim 21, wherein:

the signal generator is operated by the hitting motion and the swinging motion;

the display displays a first instruction mark for the hitting motion and a second instruction mark for the swinging motion on the display screen as the instruction of motion; and

the signal generator generates a first signal corresponding to the hitting motion and a second signal corresponding to the swinging motion as the signal.

12. (Original) A game system according to claim 11, wherein the sound control means reads the corresponding sound data from the sound data storage means based on a combination of ON-OFF states of the first and second signals from the signal generator.

13. (Previously presented) A game system according to claim 11, wherein two image display areas for displaying the first and second instruction marks while moving them with respect to the reference mark are provided on the right and left sides of the display screen with respect to the game player, and two signal generators are provided on the right and left sides of the game system with respect to the game player.

14. (Previously presented) A game system according to claim 13, wherein the two image display areas are provided for a plurality of game players, and the two signal generators are provided for a plurality of game players.

15. (Currently amended) A game system comprising:

a signal generating device retainable by a game player in a manner permitting transfer of at least one of a hitting motion and a swinging motion imparted thereto by said game player, the signal generating device including a signal generator,

the signal generator including:

a first sensor for sensing ~~at least one of an acceleration and an impact of the signal generating device[[],]~~; and
a second sensor for sensing ~~an acceleration of the signal generating device;~~

~~said signal generator first sensor~~ generating a first signal in response to said ~~at least one of the hitting motion and the swinging motion~~ of the game player when said ~~at least one of said acceleration and said impact~~ is sensed while the game player is in motion with said signal generating device[[],];

said second sensor generating a second signal in response to said swinging motion when said acceleration is sensed while said signal generating device is retained by the game player;

said second signal being indicative of a change in velocity of said signal generating device being moved by said game player, an entirety of said second sensor of said signal generator being movable by the game player from a first location to a second location by

movement of said signal generating device retained by the game player, said change in velocity being measured as a difference between a first velocity of said second sensor when at said first location and a second velocity of said second sensor when at said second location; and

said first signal being indicative of a change in a state of said signal generating device being moved by said game player from a third location to a fourth location by movement of said signal generating device retained by the game player, said change in the state being measured as a difference other than the change in velocity of the first sensor when at said third location and said state when at said fourth location;

a display having a display screen for displaying and successively renewing an instruction of motion on the display screen;

an evaluating means for evaluating a game result based on a generation timing of the signal; and

a sound generator for outputting at least a background sound.

16. (Currently amended) A game system comprising:

a signal generating device retainable by a game player in a manner permitting transfer of at least one of a hitting motion and a swinging motion imparted

thereto by said game player, the signal generating device including a signal generator,

the signal generator including:

a first sensor for sensing ~~at least one of an acceleration and an impact of the signal generating device[,];~~ and
a second sensor for sensing an acceleration of the signal generating device;

said ~~signal generator~~ first sensor generating a first signal in response to said ~~at least one of the hitting motion and the swinging motion~~ of the game player when said ~~at least one of said acceleration and said impact~~ is sensed while the game player is in motion with said signal generating device[,];

said second sensor generating a second signal in response to said swinging motion when said acceleration is sensed while said signal generating device is retained by the game player;

said second signal being indicative of a change in velocity of said signal generating device being moved by said game player, an entirety of said second sensor of said signal generator being movable by the game player from a first location to a second location by movement of said signal generating device retained by the game player, said change in velocity being measured as a difference

between a first velocity of said second sensor when at said first location and a second velocity of said second sensor when at said second location; and

said first signal being indicative of a change in a state of said signal generating device being moved by said game player from a third location to a fourth location by movement of said signal generating device retained by the game player, said change in the state being measured as a difference other than the change in velocity of the first sensor when at said third location and said state when at said fourth location;

a display having a display screen for displaying and successively renewing an instruction of motion on the display screen, said display displaying a first instruction mark moving along a virtual line for the hitting motion and a second instruction mark moving along the virtual line for the swinging motion on the display screen as the instruction of motion;

an evaluating means for evaluating a game result based on a generation timing of the signal; and

a sound generator for outputting at least a background sound.

17. (Previously presented) The game system according to claim 15, wherein said display displays a first instruction mark moving along a first virtual line

for the hitting motion and a second instruction mark moving along a second virtual line for the swinging motion on the display screen as the instruction of motion.

18. (Previously presented) The game system according to claim 17, wherein said first virtual line extends in a vertical direction on the display screen.

19. (Previously presented) The game system according to claim 17, wherein said second instruction mark is moved from bottom to top with transversal motion.

20. (Currently amended) A game system comprising:
a signal generating device retainable by a game player in a manner permitting transfer of a hitting motion and a swinging motion imparted thereto by said game player, the signal generating device including a signal generator including:

a first sensor for sensing an impact of the signal generating device, and

a second sensor for sensing an acceleration of the signal generating device,

said signal generator generating a first signal in response to the hitting motion of the game player when said impact is sensed while the game player is in motion with said signal generating device and

a second signal in response to the swinging motion of the game player while the game player is in motion with said signal generating device, said second signal being indicative of a change in velocity of said signal generating device being moved by said game player, an entirety of said second sensor of said signal generator being movable by the game player from a first location to a second location by movement of said signal generating device retained by the game player, said change in velocity being measured as a difference between a first velocity of said second sensor when at said first location and a second velocity of said second sensor when at said second location, said first signal being indicative of a change in a state of said signal generating device being moved by said game player from a third location to a fourth location by movement of said signal generating device retained by the game player, said change in the state being measured as a difference other than the change in velocity of the first sensor when at said third location and said state when at said fourth location;

a display having a display screen for displaying and successively renewing an instruction of motion on the display screen, said display displaying a first instruction mark, as an instruction of hitting motion, moving along a first virtual line and a second instruction mark, as an instruction of the swinging motion, moving

along a second virtual line, and a first reference mark and a second reference mark such that said first instruction mark moves towards said first reference mark and said second instruction mark moves towards said second reference mark;

an evaluating means for evaluating a game result based on a generation timing of the signal; and

a sound generator for outputting at least a background sound.

21. (Currently amended) A game system comprising:
a signal generating device retainable by a game player in a manner permitting transfer of at least one of a hitting motion and a swinging motion imparted thereto by said game player, the signal generating device including a signal generator,

the signal generator including:

a first sensor for sensing at least one of an acceleration and an impact of the signal generating device[[],]; and

a second sensor for sensing an acceleration of the signal generating device;

said signal generator first sensor generating a first signal in response to said at least one of the hitting motion and the swinging motion when said at least one of said acceleration and said impact is sensed while said signal generating device is retained by the game player[[],];

said second sensor generating a second signal in response to said swinging motion when said acceleration is sensed while said signal generating device is retained by the game player;

 said second signal being indicative of a change in velocity of said signal generating device being moved by said game player, an entirety of said second sensor of said signal generator being movable by the game player from a first location to a second location by movement of said signal generating device retained by the game player, said change in velocity being measured as a difference between a first velocity of said second sensor when at said first location and a second velocity of said second sensor when at said second location; and

said first signal being indicative of a change in a state of said signal generating device being moved by said game player from a third location to a fourth location by movement of said signal generating device retained by the game player, said change in the state being measured as a difference other than the change in velocity of the first sensor when at said third location and said state when at said fourth location;

 a display having a display screen for displaying and successively renewing an instruction of motion on the display screen;

evaluating means for evaluating a game result based on a generation timing of the signal; and
a sound generator for outputting at least a background sound.

22. (New) A game system according to claim 21, wherein said first sensor is an impact sensor and said second sensor is an acceleration sensor.

23. (New) A game system according to claim 22, wherein said impact sensor includes piezoelectric material such that said piezoelectric material elongates or contracts in response to the impact motion by the game player in a direction from the third location to the fourth location.

24. (New) A game system according to claim 23, wherein said signal generating device includes a bottom surface on which said first sensor and the second sensor are provided and said impact sensor detects the impact motion in a direction orthogonal to the bottom surface.

25. (New) A game system according to claim 23, wherein said acceleration sensor detects the change in velocity in a direction parallel to the bottom surface.

26. (New) A game system according to claim 25, wherein the motion detecting direction of said acceleration sensor is substantially orthogonal to the motion detection direction of said impact sensor.

27. (New) A game system according to claim 22, wherein the motion by the player is judged by the ON/OFF states of the acceleration sensor and the impact sensor.

28. (New) A game system according to claim 27, wherein the motion by the player is judged to be the swinging motion when only the acceleration sensor is ON and the motion by the player is judged to be the hitting motion when the impact sensor is ON state regardless of the ON/OFF state of the acceleration sensor.

29. (New) A game system according to claim 24, wherein said impact sensor is mounted on a layer provided over the bottom surface and said acceleration sensor is mounted over the impact sensor with a clearance therefrom such that the acceleration sensor is supported on said layer via a plurality of supporting members.

30. (New) A game system according to claim 29, wherein said supporting member include a tubular member on which the acceleration sensor is placed and a screw member which is engaged with the top surface of the acceleration sensor and

is inserted through the tubular member and tightened to the layer so that the acceleration sensor is fixed over said impact sensor onto the layer.